

Office of Second Line of Defense: Partnership Opportunities

August 2012

Second Line of Defense (SLD)

MISSION: Strengthen the capabilities of partner countries to *deter, detect, and interdict* illicit trafficking of special nuclear and other radioactive materials at international border crossings including airports, seaports, and other points of entry/exit.

STRATEGY: Develop cooperative efforts to implement strategic mix of mobile, discreet, and fixed deployments that is commensurate with regional illicit trafficking threat

- Targeted fixed radiation portal monitor deployments to address critical gaps in the existing detection architecture
- Expanded mobile equipment deployments to foreign law enforcement as part of adaptable, flexible detection approach for interior and border applications.
- Refined scope for scanning container traffic through major seaports (Megaports), capitalizing on technical innovations, and maintaining a global deterrent effect
- Increased emphasis on long-term performance effectiveness

GOAL: Deliver an effective and sustainable global capability to *deter, detect, and interdict* illicit trafficking in special nuclear and other radioactive materials.

SLD: Focus on Implementation and Sustainability

Second Line of Defense

Implementation

- Equip points of entry: airports, border crossings, major seaports (Megaports), and small feeder seaports
- Bolster detection capabilities of foreign border officials, customs officials, port authorities, or affiliated agencies
- Provide mobile detection technology (vans) to law enforcement agencies for green/blue borders and interior operations
- Install national communications network joining all detection equipment to central partner country location to support alarm response, maintenance and oversight

Sustainability

- Currently supports over 400 SLD sites in transition to full Partner Country Partner responsibility
- Ensure long-term operation of SLD systems by Partner Country Partners
- Build Partner Country Partners' indigenous capabilities to fully support SLD systems
- Provide transition support and services including help desk, data analysis and other diagnostic tools

Accomplishments

SLD Implementation Program:

- Installed over 2200 radiation portal monitors and provided handheld equipment at international points of entry (airports, border crossings, feeder seaports) in over 20 countries and provided mobile detection systems to 9 countries
- Installed over 350 radiation portal monitors, straddle carriers, spectroscopic portal monitors, and provided handheld equipment at major seaports (Megaports) in 30 countries.

SLD Sustainability Program:

- Transitioned 224 international points of entry and 10 Megaports
- Transitioning 228 international points of entry and 32 Megaports.

SLD Provided Equipment

Fixed Locations

- Vehicle monitors
- Pedestrian monitors
- Rail monitors
- Spectroscopic monitors



Mobile and Man-Portable Equipment

- Straddle carriers & MRDIS
- Mobile detection systems
- Man Portable Equipment



Handheld Equipment

- Personal Radiation Pagers (PRDs)
- Radioisotopic Identifiers (RIIDs)
- Radiation Survey meters
- Highly Sensitive Germanium Identifiers



TSA Survey
Meter



Personal Radiation
Detectors (PRDs)



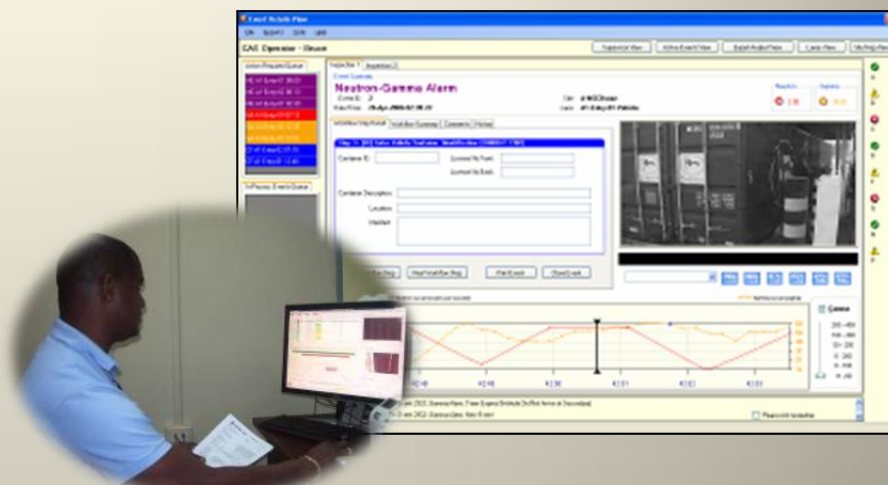
Thermo
IdentiFINDER



ORTEC Detective

Communications Systems: CAS and National Network

- ♦ All data from installed equipment reports to an appropriately located, on-site Central Alarm Station
 - Radiation Portal Monitors
 - OCR and/or LPR
 - Secondary Inspection Equipment
- ♦ Can be configured as single or multiple work stations
- ♦ Graphical display assists operator in proficient alarm adjudication



Central Alarm Station Display



National Communications System

- ♦ All data from sites with installed equipment reports to a regional or central location to facilitate
 - Radiation detection alarm adjudication
 - Equipment maintenance and repair
- ♦ Radiation detection alarm information can be simultaneously transmitted to multiple agencies in partner country

SLD Training, Workshops and Field Exercises

- ♦ Training takes place both during appropriate phases of after equipment installation and sustained operations
 - ♦ Radiation Detection/Response Training
 - ♦ CONOPs Training
 - ♦ Maintenance/Repair Training
- ♦ Training methodologies and materials provided to partner countries as part of comprehensive transition efforts.
- ♦ SLD collaborates with European Commission Joint Research Centre and IAEA on development and delivery of training, including:
 - Front Line Officer training at JRC
 - In-Country – On-site on-the-job training
- ♦ Bilateral and Regional Workshops: Sustainability
 - ♦ Development of regulations and management practices
 - ♦ Best practices; e.g. airport operations
- ♦ Table Top and Field Training Exercises
 - ♦ Collaboration with partner countries



International Partnerships: Existing and Future Opportunities

- Important component of on-going work has been international partnerships with EU, IAEA, Global Partnership countries
 - Efficiencies gained and duplication avoided through Border Monitoring Working Group
- SLD Assistance Partnership Options
 - Direct funding of SLD by Global Partnership member countries
 - GP partners who have provides such funding in the past: **Finland, Norway, Canada, South Korea, New Zealand**
 - Facilitate cost sharing arrangements among government organizations and commercial entities
 - Provision of SLD design, construction and training methodologies and materials



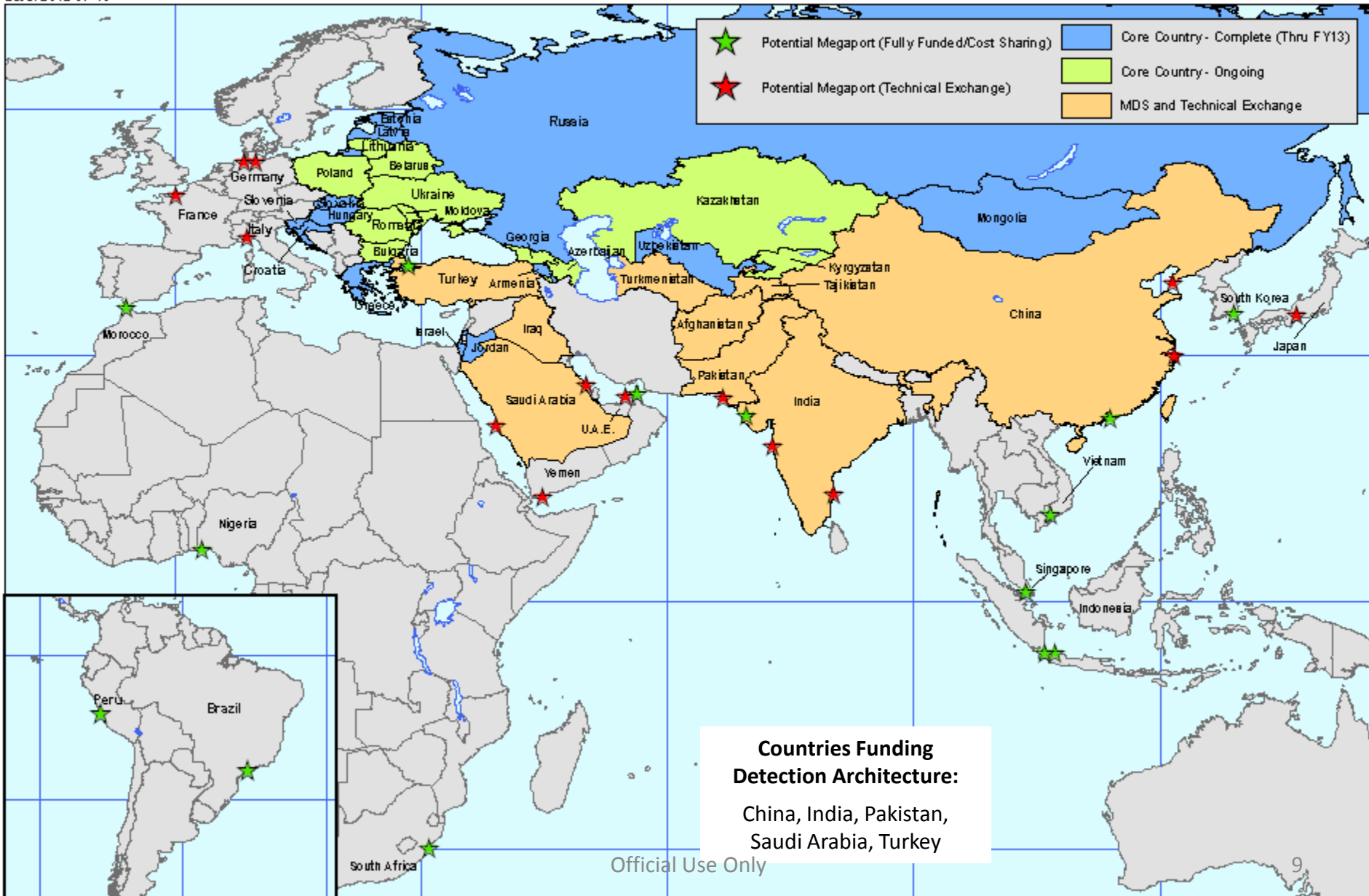
Investment: Scope of Nuclear Security Impact

- Assistance levels range from training, and hand-held equipment to fully implemented vehicle crossing at border check point.
 - A contribution of approximately \$150,000 could supply a host country with one mobile detection van
 - A donation of \$300,000 could provide equipment and part of the construction for one border crossing or radiation detection portal monitors for multiple crossings
 - A contribution of approximately \$1,000,000 would be sufficient to fully equip one vehicle crossing



Proposed SLD Outyear Strategy (FY14-FY18)

Date: 2012-07-19



In Summary

- Partnership opportunities:
 - to ensure coordinated and robust radiation detection architecture to combat illicit trafficking
 - to leverage SLD competencies and methodologies
- Multiple approaches that can be tailored to the specific requirements of donor countries
- Please contact SLD (information in your folder) for further information